Product Evaluation

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: RC-484

Effective Date: April 1, 2016
Revised: August 1, 2016
Re-evaluation Date: April 2020

Product Name: Owens Corning Self-Adhering Modified Bitumen Roofing Systems, Wood Deck Applications

Manufacturer: Owens Corning Roofing and Asphalt, LLC
One Owens Corning Parkway
Toledo, OH 43659
(740) 321-6345

General Description:

- **DeckSeal MA Nailbase** is a modified bitumen coated fiberglass reinforced base sheet.
- **DeckSeal SA Base/Ply** is a nominal 60-mil (1.5-mm) thick, self-adhering, fiberglass reinforced modified bitumen membrane with a smooth top surface.
- **DeckSeal SA Base/Ply FR** is a nominal 60-mil (1.5-mm) thick, self-adhering, fiberglass reinforced modified bitumen membrane with a smooth top surface and fire retardant chemistry.
- **DeckSeal SA SBS Cap** is a self-adhering, polyester reinforced modified bitumen membrane with a granulated top surface.
- **DeckSeal SA SBS Cap FR** is a self-adhering, polyester reinforced modified bitumen membranes with a granulated top surface and fire retardant chemistry.

Limitations and Installation:
General installation Requirements:
All IRC and the IBC requirements must be satisfied and manufacturer's installation instructions followed, unless otherwise specified by this product evaluation.

For All applications: Roof decks, which this product is to be installed, must be provided with positive drainage. A minimum roof slope after construction of 1/4" per foot is recommended.

Prime decks where required, in accordance with requirements and recommendations of the primer, deck manufacturer, and Owens Corning (if applicable). When installing DeckSeal SA Base/Ply direct to deck on re-roofing and re-cover applications, prime existing roof surfaces an asphalt primer meeting ASTM D-41 specification and allow to dry prior to installing the DeckSeal roofing system.

Owens Corning recommends when applying the self-adhered membranes to new wood decking, that the wood be clean and dry. Application of ASTM D-41 asphalt primer is not required. When applying the self-adhered membrane in a re-cover or re-roofing application, cleaning, and priming of the wood decking is required.

Please note that direct application of the roof covering to a wood deck to a habitable environment, i.e. living space can effect ventilation issues; as such, Owens Corning suggests the option of a mechanically attached base sheet or recover board, before applying self-adhered membranes. Refer to Owens Corning installation instructions available at www.owenscorning.com/roofing.

The following notes apply to the systems outlined herein:

1. The roof decking must meet or exceed the uplift requirements of the IRC and IBC along with applicable Texas Revisions adopted by TDI. Install as required for resistance to wind loads.
2. Roof framing members shall be spaced a maximum of 24" o.c.
3. Unless otherwise noted, all base sheets specified in this report are metric.
4. Unless otherwise noted, refer to the following references for bonded base, ply or cap sheet applications.

Table 1: Owens Corning Roof Covers

Reference	Layer	Material	Application
SBS-MA (SBS, Mechanically Attached)	Base	DeckSeal MA Nailbase	Mechanically Fastened
SBS-SA (SBS, Self-Adhering)	Base or Ply	DeckSeal SA Base/Ply, DeckSeal SA Base/Ply FR	Self-Adhering
	Cap	DeckSeal SA SBS Cap, DeckSeal SA SBS Cap FR	

5. Apply any of the following coatings to the top roof membrane. Apply the coatings in accordance with the manufacturer's installation instructions.
   - 5001 – Fortress Heavy Duty Non-Fibered Asphalt Emulsion Roof Coating;
   - 5004 – Fortress Heavy Duty Fibered Asphalt Emulsion Roof Coating;
   - Poly-Sil 2500 Silicone Coating;
   - Poly-Sil 2200 Silicone Coating;
   - Prime-Tek 11 Primer

Limitations and Installation:

TABLE 2A: OWENS CORNING MODIFIED BITUMEN WOOD DECK, MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER								
Assembly No.	**Substrate**	**Anchor Sheet**		**Insulation**		**Roof Cover**		
		Type	**Attach**	**Base**	**Top**	**Base**	**Ply**	**Cap**
1	Min. 19/32" plywood at 24" spans attached 6" o.c. with 8d common nails	SBS-MA	OMG Flat Bottom Plates (square) with #14 Roofgrip	ASTM C1289, type II polyisocyanurate in hot asphalt	Min. 1/4" DensDeck, or DensDeck Prime, in hot asphalt	SBS-SA	(Optional) One or more SBS-SA	SBS-SA
Design Pressure (psf)		**Anchor Sheet Attachment**						
0 < P ≤ -52.5		12" o.c. at 4" laps and 12" o.c. at two, equally spaced, staggered center rows.						

TABLE 3A: OWENS CORNING MODIFIED BITUMEN WOOD DECK, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER							
Assembly No.	**Substrate**	**Insulation Layer(s)**		**Base Sheet**		**Roof Cover**	
		Base Layer	**Top Layer**	**Type**	**Fasteners**	**Ply**	**Cap**
2	Min. 19/32" plywood at 24" spans attached 6" o.c. with 8d common nails	One or more layers, any combination	(Optional) Min. 1/4" DensDeck, loose laid	SBS-MA	OMG Flat Bottom Plates (square) with #14 Roofgrip	(Optional) One or more SBS-SA	SBS-SA
Design Pressure (psf)		**Base Sheet Attachment**					
0 < P ≤ -52.5		12-inch o.c. at 4" laps and 12" o.c. at two, equally spaced, staggered center rows.					

Limitations and Installation (cont.):

TABLE 3B: OWENS CORNING MODIFIED BITUMEN WOOD DECK, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER							
Assembly No.	**Substrate**	**Insulation Layer(s)**		**Base Sheet**		**Roof Cover**	
		Base Layer	**Top Layer**	**Type**	**Fasteners**	**Ply**	**Cap**
3	Min. 19/32" plywood at max. 24" spans attached 4" o.c. with 8d common nails or 6" o.c. with #8 screws	One or more layers, any combination	(Optional) Min. 1/4" DensDeck, loose laid.	SBS-MA	OMG Flat Bottom Plates (square) with #12 Standard Roofgrip	(Optional) One or more SBS-SA	SBS-SA
Design Pressure (psf)		**Base Sheet Attachment**					
0 < P ≤ -60		12" o.c. at 4" laps and 12" o.c. at two, equally spaced, staggered center rows.					

TABLE 4A: OWENS CORNING MODIFIED BITUMEN WOOD DECK, NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER						
Assembly No.	**Substrate**	**Slip Sheet**	**Base Sheet**		**Roof Cover**	
			Type	**Fasteners**	**Ply**	**Cap**
4	Min. 19/32" plywood at max. 24" spans attached 6" o.c. with #8 screws	(Optional) ASTM D 4601, Type II base sheet loose laid	SBS-MA	32-ga., 1-5/8" diameter tin caps with 12-ga. annular ring shank nails Tin caps primed with PG100 or ASTM D41 primer	None	SBS-SA
Design Pressure (psf)		**Base Sheet Attachment**				
0 < P ≤ -112.5		6" o.c. at 4" laps and 6" o.c. at four, equally spaced, staggered center rows.				

Limitations and Installation (cont.):

TABLE 4B: OWENS CORNING MODIFIED BITUMEN WOOD DECK, NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER					
Assembly No.	**Substrate**	**Base Sheet**		**Roof Cover**	
		Type	**Fasteners**	**Ply**	**Cap**
5	Min. 19/32" plywood at 24" spans attached 6-inch o.c. with 8d common nails	SBS-MA	OMG Flat Bottom Plates (square) with #14 Roofgrip	(Optional) SBS-SA	SBS-SA
Design Pressure (psf)		**Base Sheet Attachment**			
0 < P ≤ -52.5		12" o.c. at 4" laps and 12" o.c. at two, equally spaced, staggered center rows.			

TABLE 4C: OWENS CORNING MODIFIED BITUMEN WOOD DECK, NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER					
Assembly No.	**Substrate**	**Base Sheet**		**Roof Cover**	
		Type	**Fasteners**	**Ply**	**Cap**
6	Min. 19/32" plywood at max. 24" spans attached 4" o.c. with 8d common nails or 6" o.c. with #8 screws	SBS-MA	OMG Flat Bottom Plates (square) with #12 Standard Roofgrip	(Optional) SBS-SA	SBS-SA
Design Pressure (psf)		**Base Sheet Attachment**			
0 < P ≤ -60		12" o.c. at 4" laps and 12" o.c. at two, equally spaced, staggered center rows.			

TABLE 4D: OWENS CORNING MODIFIED BITUMEN WOOD DECK, NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER					
Assembly No.	**Substrate**	**Base Sheet**		**Roof Cover**	
		Type	**Fasteners**	**Ply**	**Cap**
7	Min. 19/32" plywood at max. 24" spans with blocking 48" o.c. attached 6" o.c. with #10 x 3" screws	SBS-MA	32-ga., 1-5/8" diameter tin caps with 12-ga. annular ring shank nails	(Optional) SBS-SA	SBS-SA
Design Pressure (psf)		**Base Sheet Attachment**			
0 < P ≤ -112.5		4" o.c. at 4" laps and 4" o.c. at four, equally spaced, staggered center rows			

Limitations and Installation (cont.):

TABLE 4E: OWENS CORNING MODIFIED BITUMEN WOOD DECK, NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER					
Assembly No.	**Substrate**	**Base Sheet**		**Roof Cover**	
		Type	**Fasteners**	**Ply**	**Cap**
8	Min. 15/32" CDX plywood	SBS-MA	Original Simplex Cap Nails (1" head diameter, 11-gauge x 1.25" long annular grooved shank)	(Optional) SBS-SA	SBS-SA

Design Pressure (psf)	**Base Sheet Attachment**			
	At Lap		**Staggered Center Row(s)**	
	Max Spacing (o.c.)	**Min. Lap Width**	**Max Spacing (o.c.)**	**Min. # of Rows**
0 < P ≤ -52.5	6"	3"	6"	4

TABLE 5A: OWENS CORNING MODIFIED BITUMEN WOOD DECK, NON-INSULATED, BONDED ROOF COVER			
Assembly No.	**Roof Cover**		
	Joint Treatment	**Ply**	**Cap**
9	None	SBS-SA	SBS-SA
Design Pressure (psf)	**Substrate**		**Primer**
0 < P ≤ -90	Min. 19/32" plywood at max. 24" spans attached 6" o.c. with 8d ring shank nails		(Optional) PG100 Asphalt Primer

Note: Keep the manufacturer's installation instructions at the job site during the installation. Use corrosion resistant fasteners as specified in the IRC, the IBC, and the Texas Revisions.